National Park Service

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YOUR
AMERICA

Olympic National Park

Restore Elwha River Ecosystem and Fisheries

Industry Roundtable

Seattle - May 15, 2007

Port Angeles – May 16, 2007

Agenda

- Welcome
- Project Background
- 2007 Projects
  - Port Angeles Water Treatment Plant
  - Elwha Water Facilities
- Contracting Information
- Questions / Discussions

Elinor Chittenden in 1907, before Elwha Dam was built.

Project Background

The Elwha River Ecosystem and Fisheries Restoration Act
(of 1992)

"…the full restoration of the Elwha River ecosystem and native anadromous fisheries…" § 3(a)

Project Background

Major Milestones

- 1913 - Elwha Dam operational
- 1927 - Glines Canyon Dam operational
- 1968 - Elwha license application filed
- 1973 - Glines Canyon relicense application filed
- 1986 - Tribe and environmental groups intervene
- 1992 - Public Law 102-495 signed
- 1994 - *The Elwha Report* submitted to Congress
- 1996 - EIS process completed
- 2000 - Federal acquisition of dams completed
- 2005 - SEIS process completed
- 2007 - Permits received

Olympic National Park - Restore Elwha River Ecosystem and Fisheries

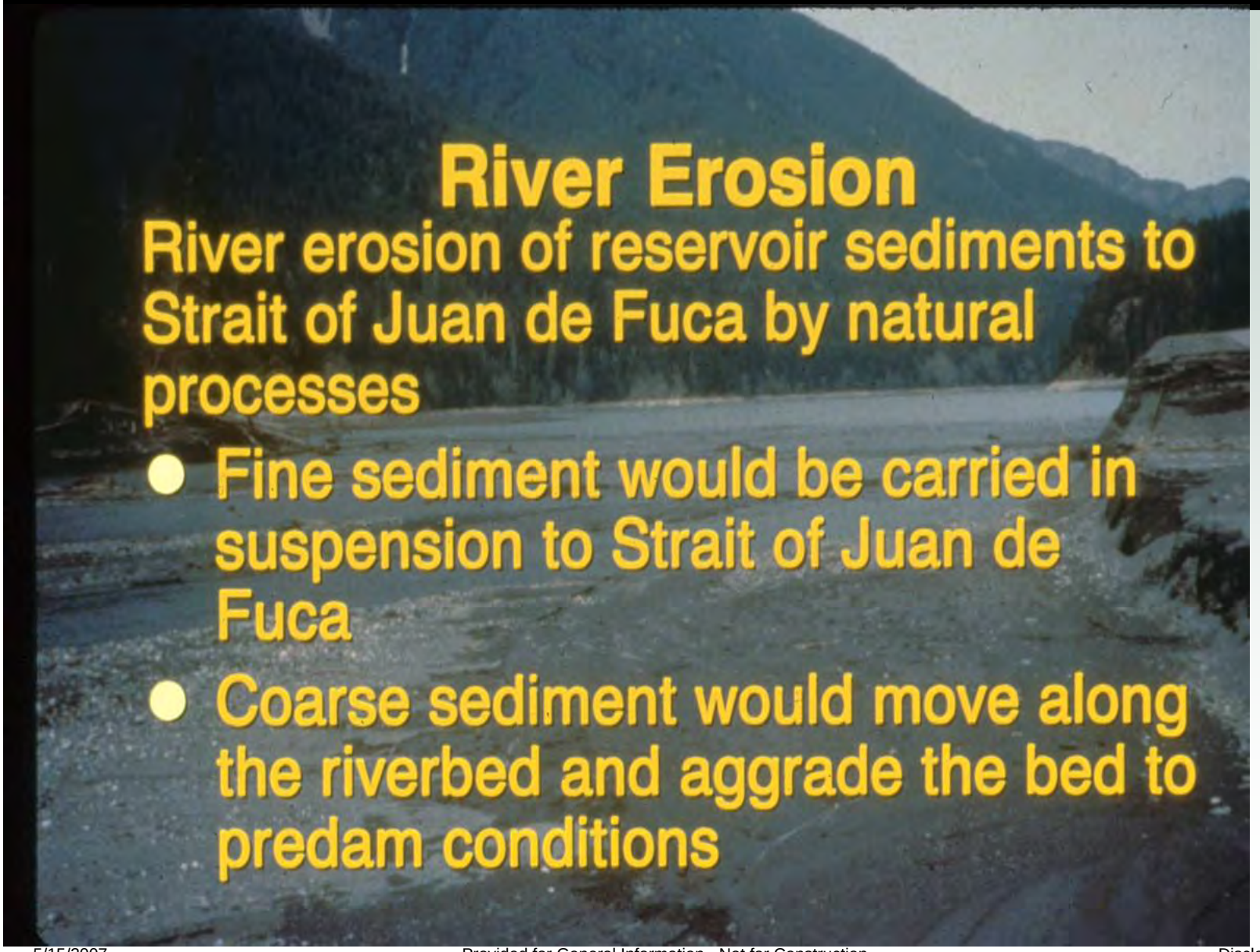
Olympic National Park - Restore Elwha River Ecosystem and Fisheries

National Park Service
U.S. Department of the Interior

Reservoir Sediments

Sediment Size	Amount (million yd^3)	Method of Transport	Rate of Transport
Silt/Clay	9.2	Suspension - all flows	High
Sand	6.2	Suspension - high flows Bedload - all flows	High Medium
Gravels & Cobbles	2.3	Bedload - all flows	Slow

Total Sediment = 17.7 million yd^3


River Erosion
River erosion of reservoir sediments to Strait of Juan de Fuca by natural processes
Fine sediment would be carried in suspension to Strait of Juan de Fuca
Coarse sediment would move along the riverbed and aggrade the bed to predam conditions

Total Sediment Released Downstream

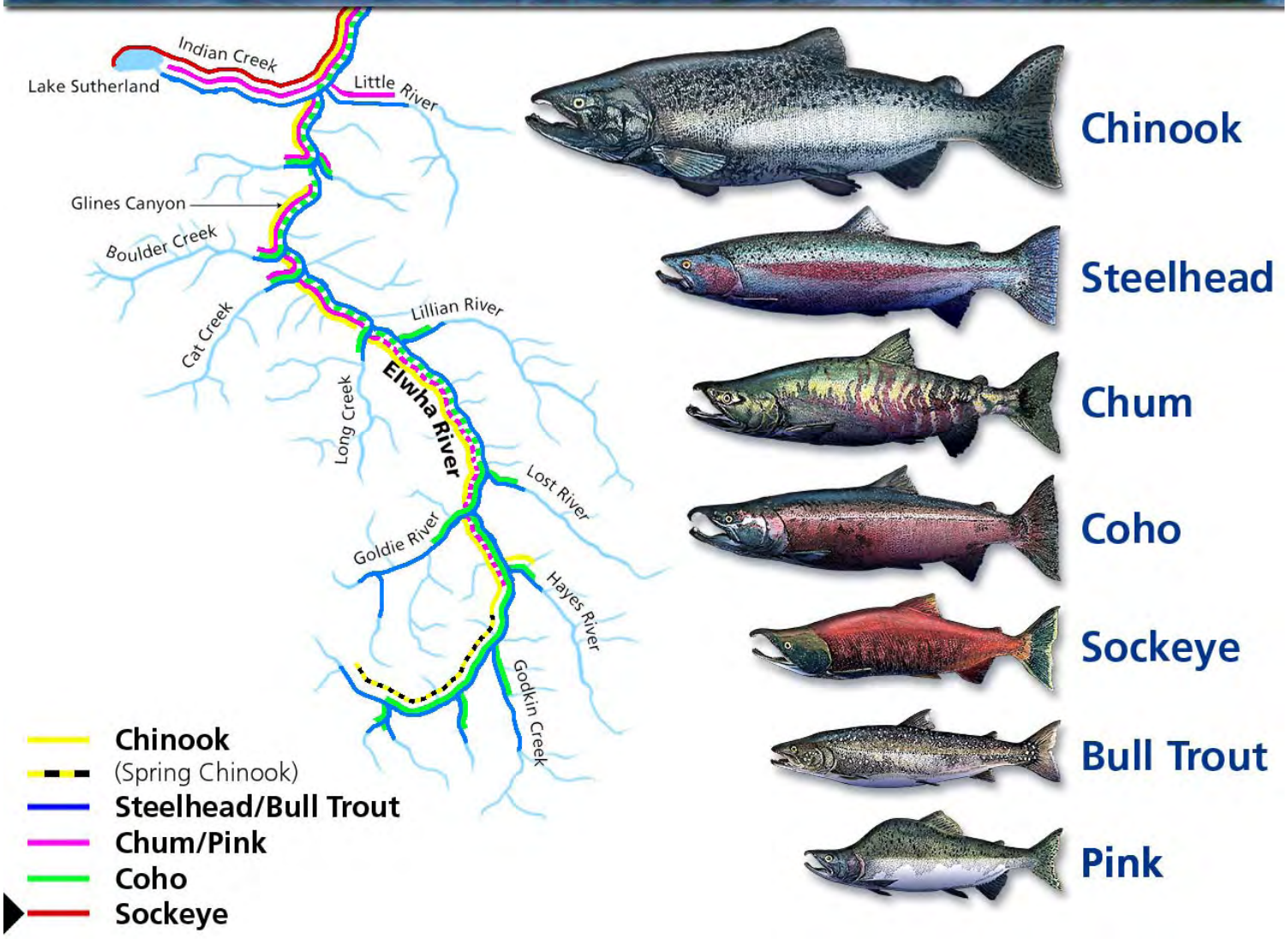
- 14-30% of Coarse Sediment (1.2-2.6 million yd^3)
- 52-61% of Fine Sediment (4.8-5.6 million yd^3)

Revegetation

- Grow trials using reservoir bottom sediments
- Collect seeds and cones within watershed
- Develop new greenhouse and implement grow contracts
- Maintain vegetative material (V)
- Relocate coarse woody debris for recolonization
- Employ biotechnical slope stabilization, as needed
- Seed and plant slopes as reservoirs drain (V)
- Rely on natural recolonization of reservoir beds
- Control and remove nonnative invasive plants (V)
- Monitor effectiveness
- Implement remedial measures, as needed

(V) = Volunteer assistance possible

Potential Range Map for the Seven Elwha Salmonids



Projected Wild Salmonid Production and Recovery Time

	DAM REMOVAL (Full Restoration)		NO ACTION (Current Conditions)
	Number of Fish	Years to Recovery	Number of Fish
Chinook	31,000	21 – 25	1,500 – 2,000
Coho	35,000	15 – 18	< 500
Pink	274,000[1]	16 – 20	< 100
Chum	36,000	18 – 21	< 200
Steelhead	10,000	15 – 18	< 500
Sockeye	6,500	12 - 20	0
Totals	392,500		< 3,300

[1]Odd-year returns

Project Background

1. Dam Acquisition ✓
2. Planning & Compliance ✓
3. Water Quality Facilities
4. Flood Protection
5. Dam Removal
6. Ecosystem Restoration
7. Other

2007 Contracts

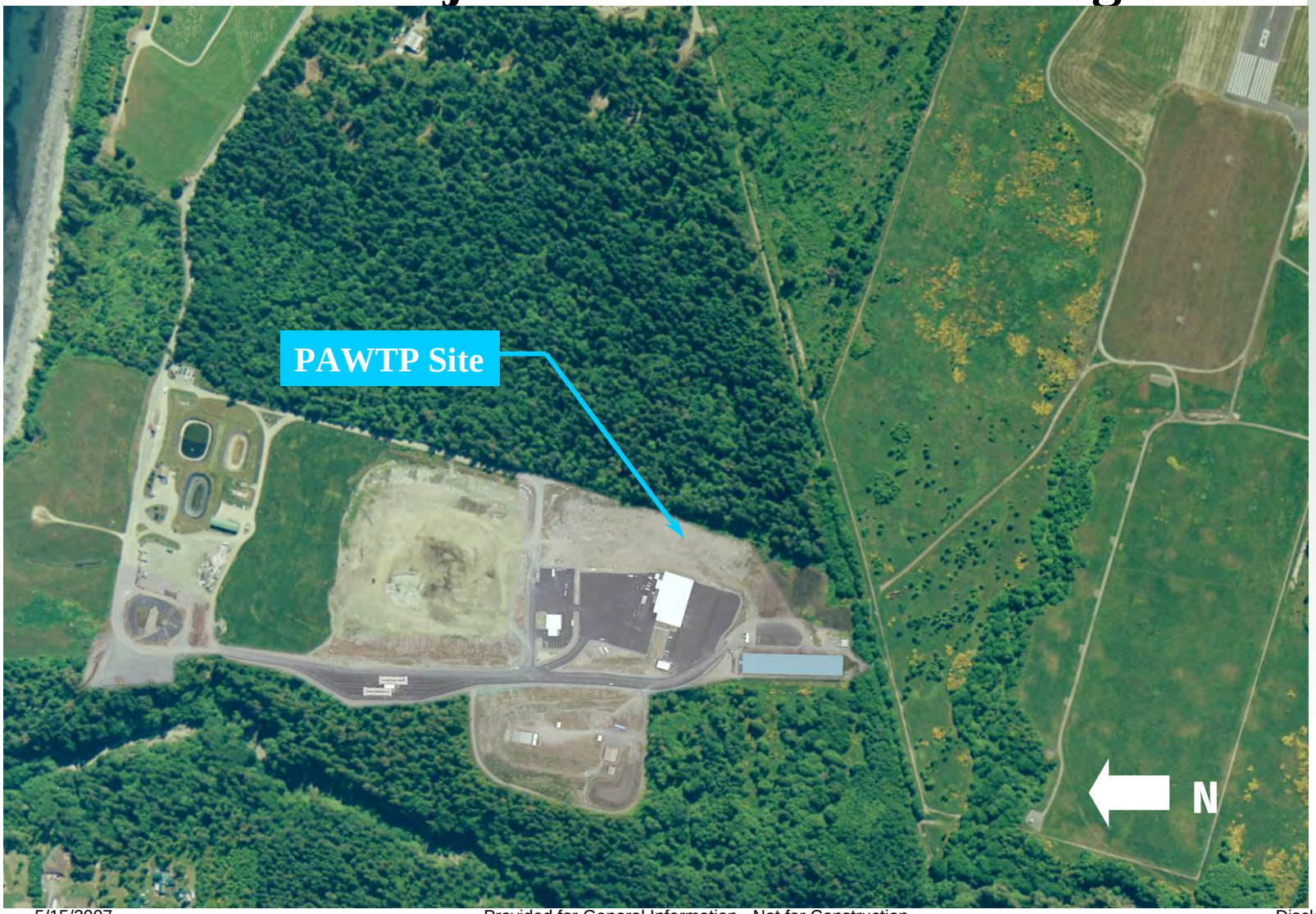
- Port Angeles Water Treatment Plant (PAWTP)
- Elwha Water Facilities (EWF)


Port Angeles Water Treatment Plant
Elwha Water Facilities and Ranney Well
Elwha Dam
Elwha River
Glines Canyon Dam
EXPERIENCE YOUR AMERICA
Tongue Point
Salt Creek
Striped Pk 1166
Angeles Point
LOWER ELWHA KLALLAM INDIAN RESERVATION
BAY
EDIZ HOOK
PORT ANGELES HARBOR
PORT ANGELES
Log Cabin Resort
East Beach
112
101
Park Headquarters
Olympic Nati
Visitor Cente
Lake Sutherland
Indian Creek
Lake Aldwell
River
Tumwater Creek
THE FOOTHILLS
Heart O' the H
Mount Storm King 4500
Mount Baldy 4680
Wildcat Mtn 3150
Mount Pleasant
Barnes Creek
Marymere Falls
Lizard Head Peak 5300
Altaire
Elwha
Happy Lake
HAPPY LAKE RIDGE
Lake Mills
Burnt Mtn 4910
Round Mountain 3541
5757
Snack bar
Boulder Peak 5600
Three Horse L
Blue L
Mt Appleton
Boulder Creek
Observation Point
Whiskey Bend
Goblins Gate
Krause Bottom
Wolf Cr
Hurricane Ridge Visitor Center
Steeple Rock 5567
Morse Creek
Maiden
Eagle Point
Trail
River

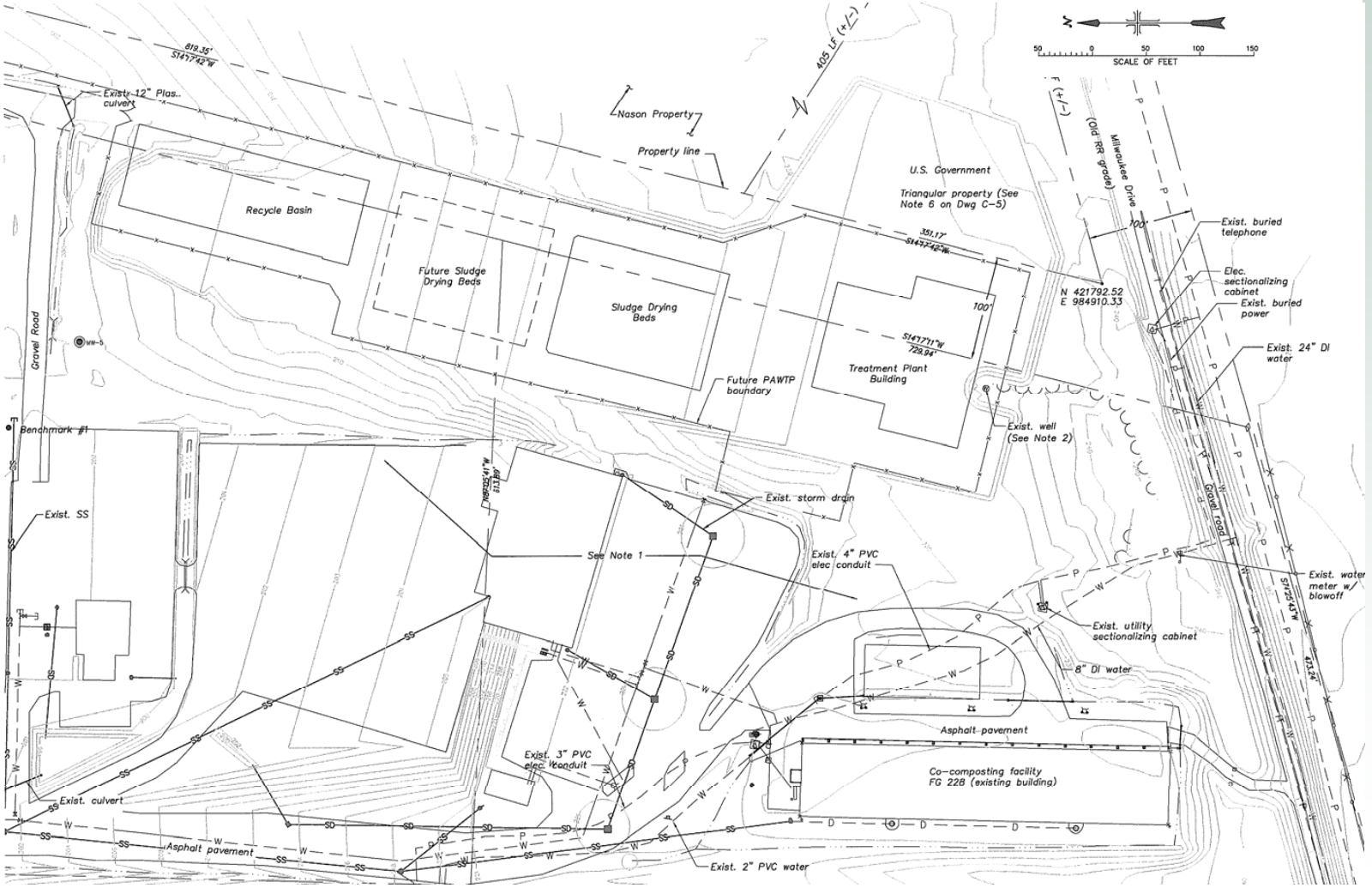
Port Angeles Water Treatment Plant (PAWTP)

- Provides mitigation of impacts to City of Port Angeles water supply during the dam removal impact period.
- Treats water from Elwha Water Treatment Plant or Ranney Well to Washington State standards for drinking water.
- Capacity to produce 10.6 mgd treated water.

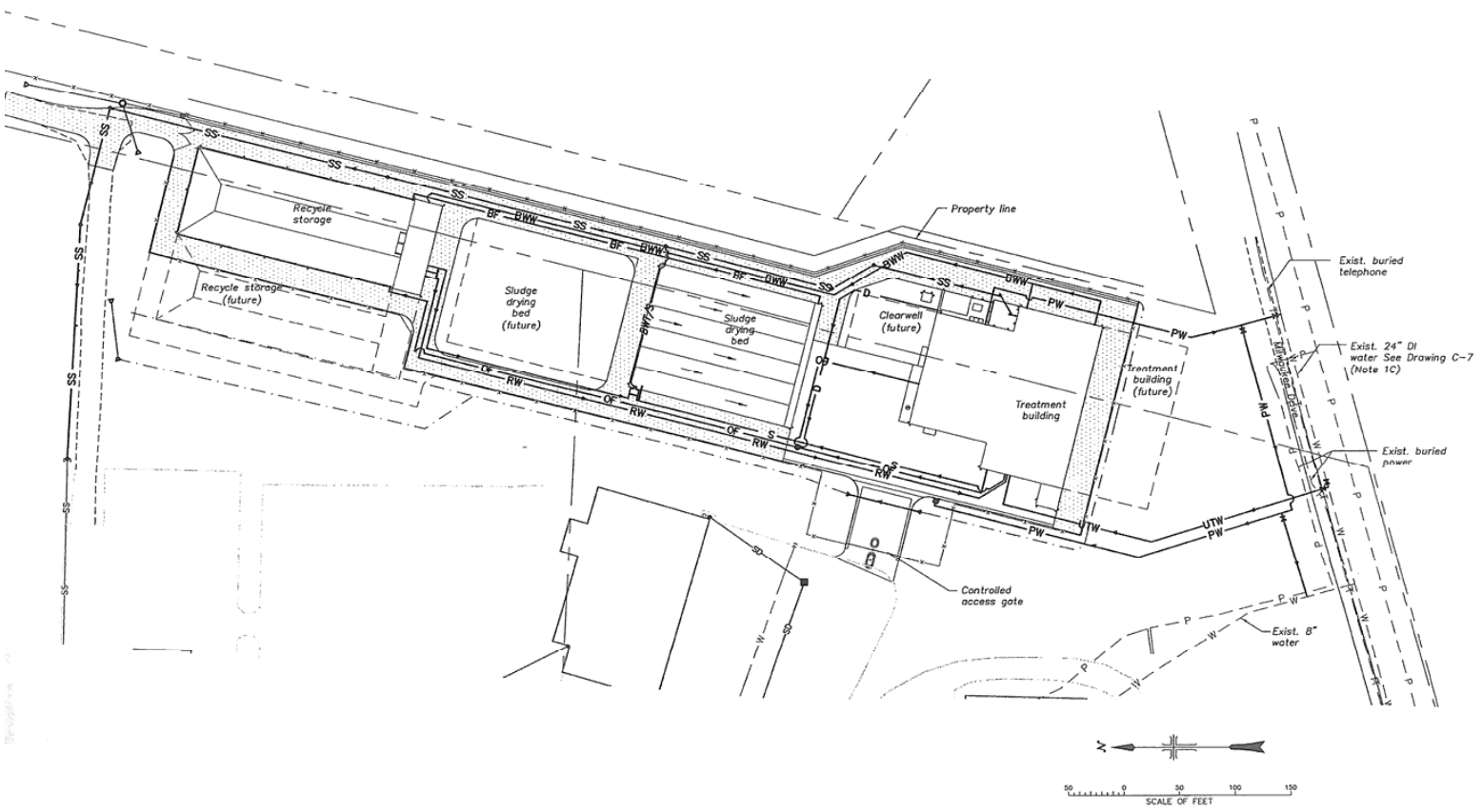
PAWTP – Project Site and Surrounding Area



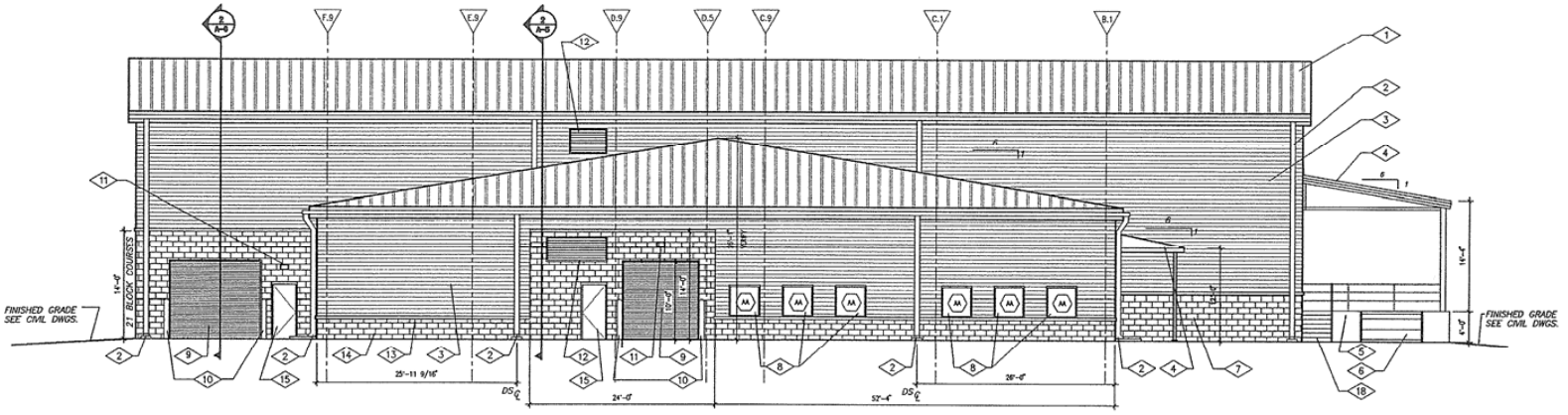
PAWTP – Site Plan



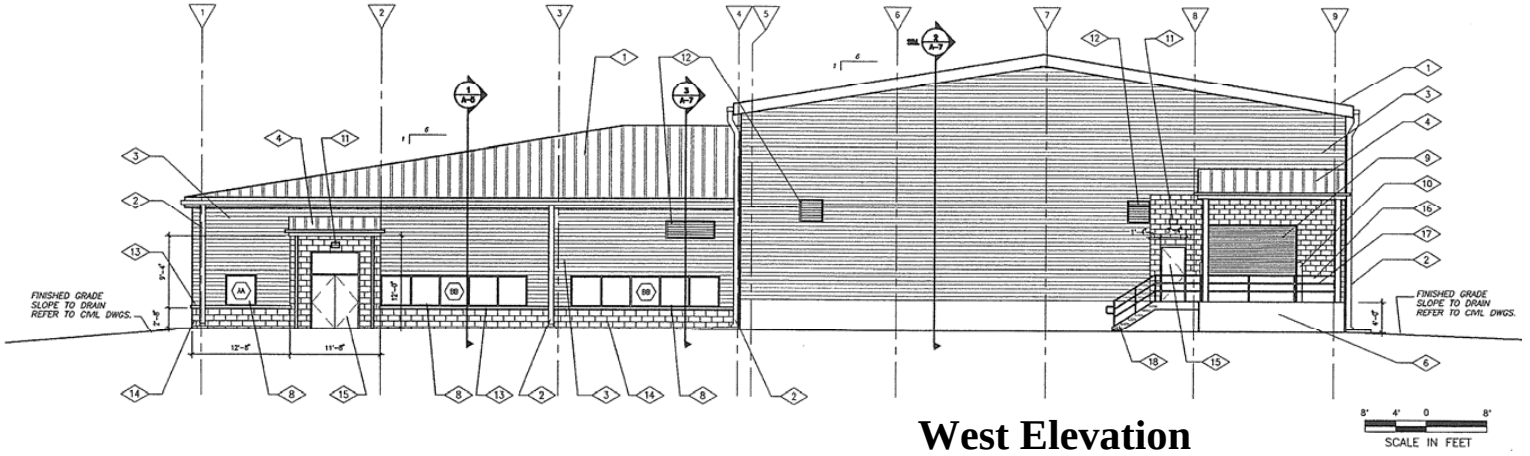
PAWTP – Site Piping



PAWTP – Building Elevations

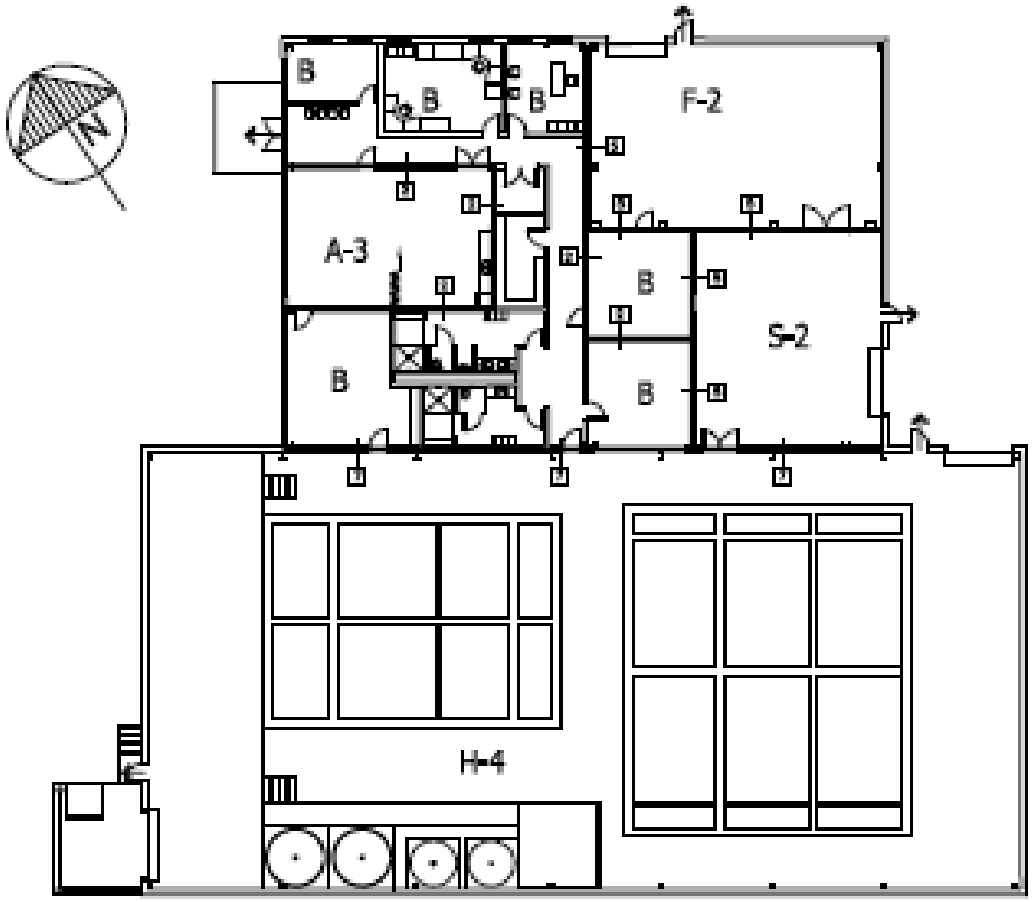


North Elevation



West Elevation

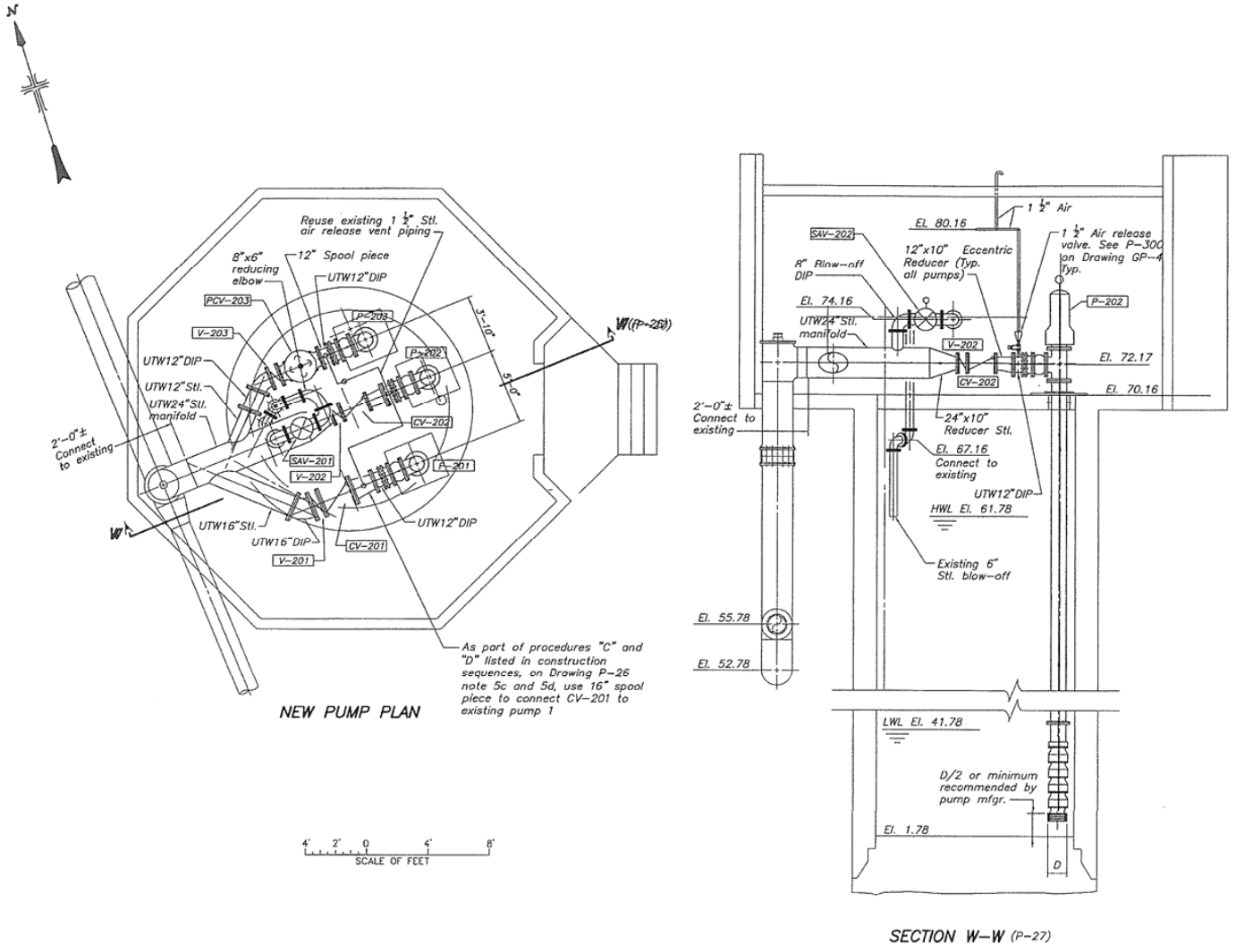
PAWTP - Building Plan



Building Area	Square Footage
Office, Lab, and Equipment Rooms	7,700
Water Treatment	11,750
Total	19,450

PAWTP – Ranney Well Area

PAWTP – Ranney Well Improvements



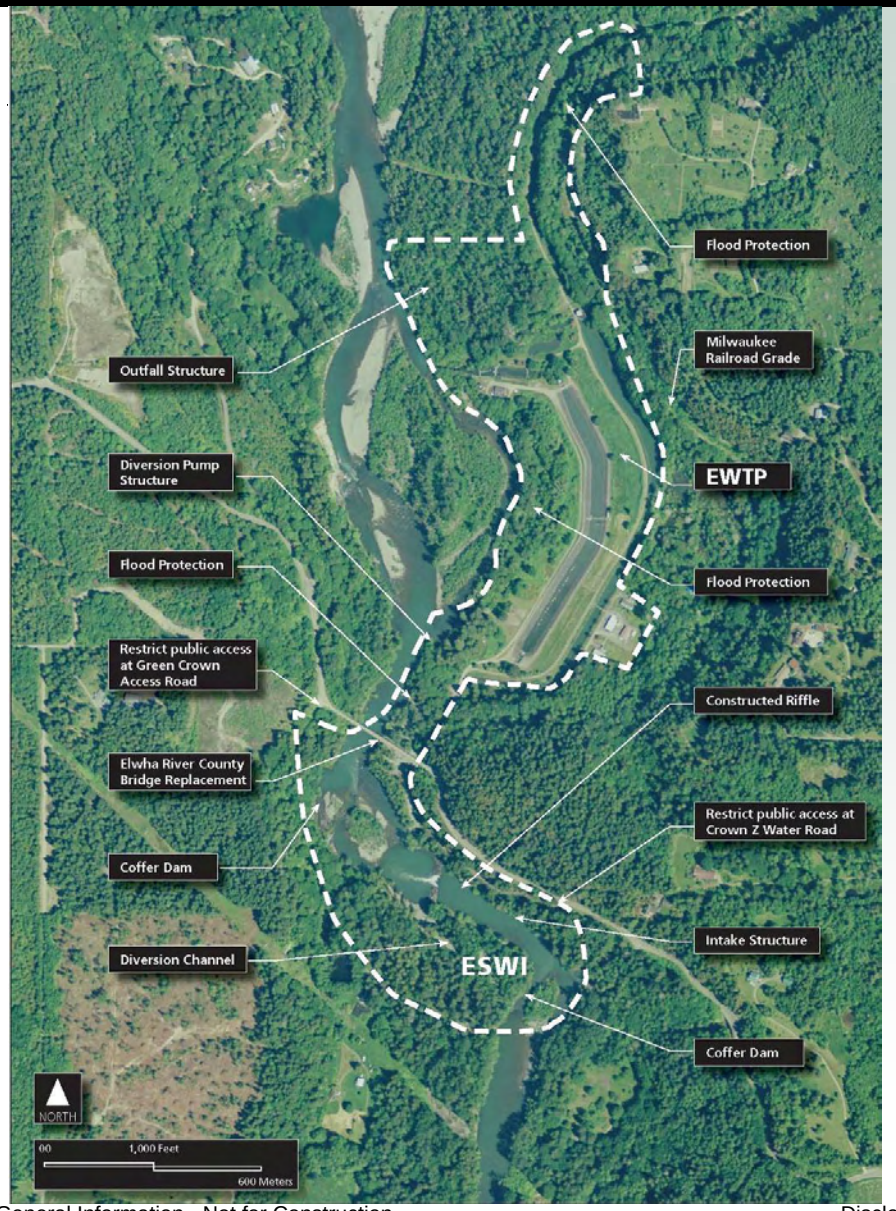
Elwha Water Facilities (EWF)

Elwha Water Facilities (EWF)

Four components:

- Elwha Surface Water Intake (ESWI)
- Elwha Water Treatment Plant (EWTP)
- Crown ‘Z’ Water Road Improvements (CRZ)
- Area Flood Protection (AFP)

Major Features on existing aerial site map



Elwha Surface Water Intake - ESWI

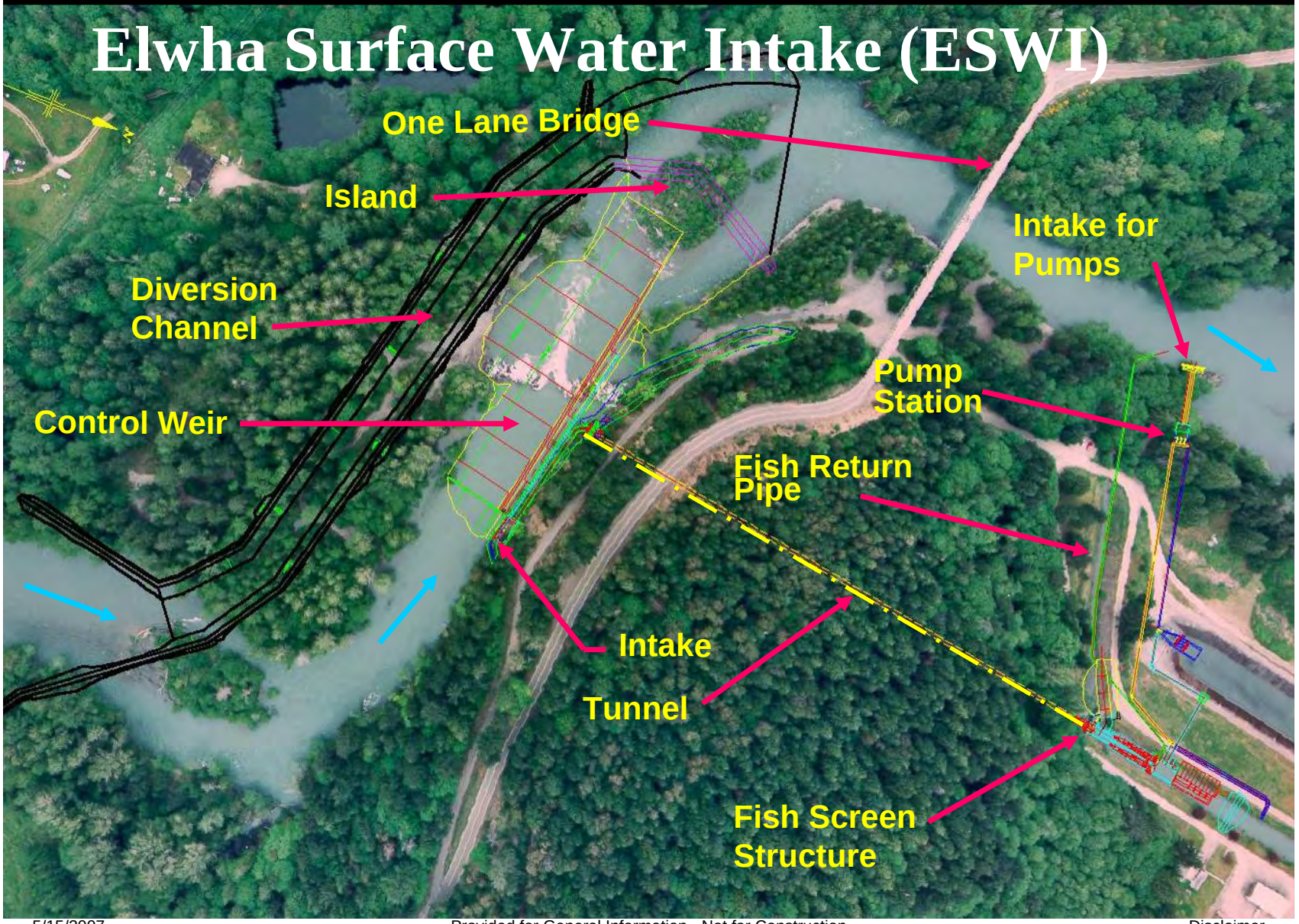
- Replaces existing City of Port Angeles rock weir structure, intake structure, and distribution structure.
- Diversion capacity is 184 cfs

Elwha Surface Water Intake - ESWI

Demolition & Site Preparation:

- Clearing of existing trees, access roads and site prep
- Temporary diversion dam and de-watering
- Removal of existing intake structure, diversion dam, gabion wall, distribution structure (WDFW Rearing Channel)
- Construct new diversion pump station

Elwha Surface Water Intake (ESWI)



Elwha Surface Water Intake - ESWI

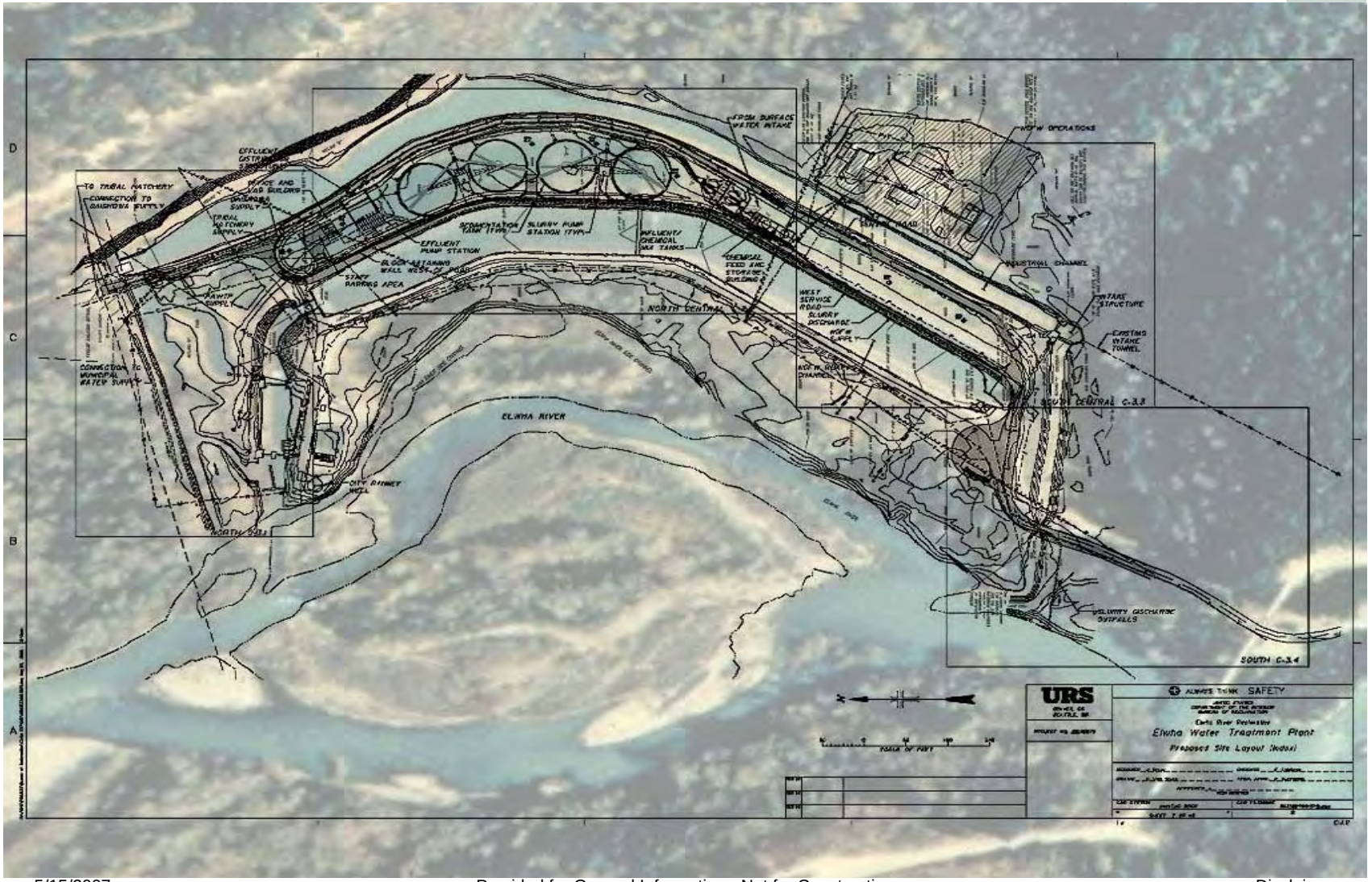
New Work

- Diversion channel
- Intake structure (includes access road, stairway, control weir, RCP extension)
- Fish screen structure and influent pump station
- WDFW Rearing Channel modifications
- Distribution vault (ties diversion pump station to Rearing Channel and Industrial Channel)
- Riffle, berm, and river channel modifications

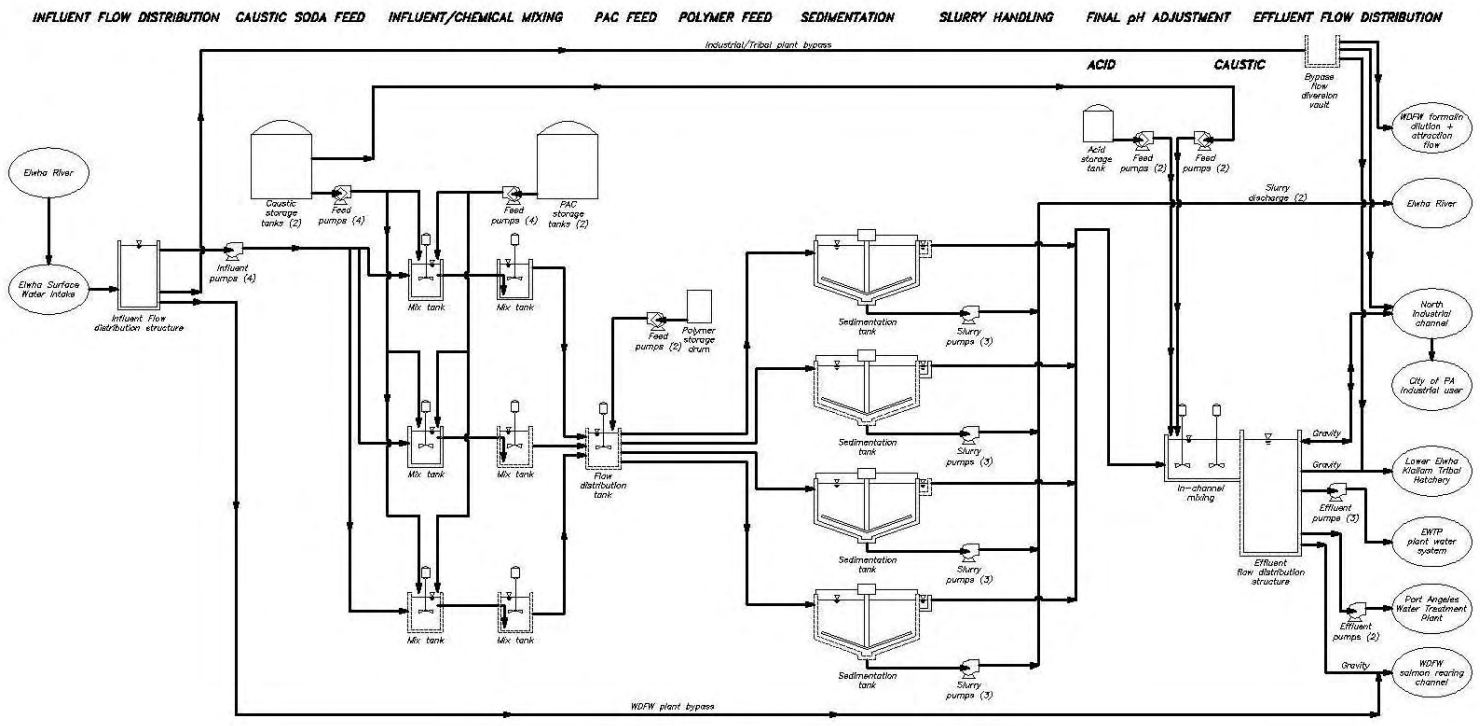
Elwha Water Treatment Plant - EWTP

- Provides treatment of surface water for industrial and hatchery purposes, and as supply to municipal water plant
- Maximum treated capacity is 37,000 gpm
- 4 sedimentation tanks, 100 foot dia. each

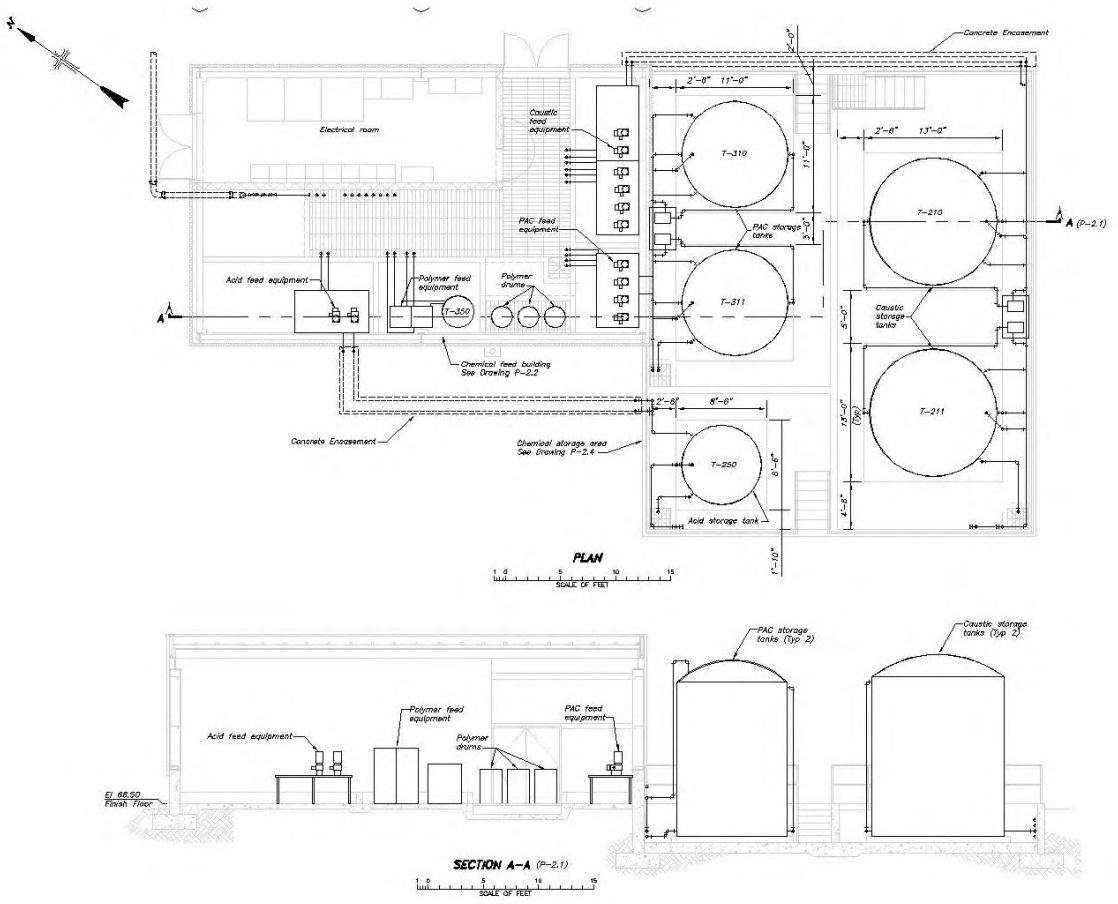
Elwha Water Treatment Plant - EWTP



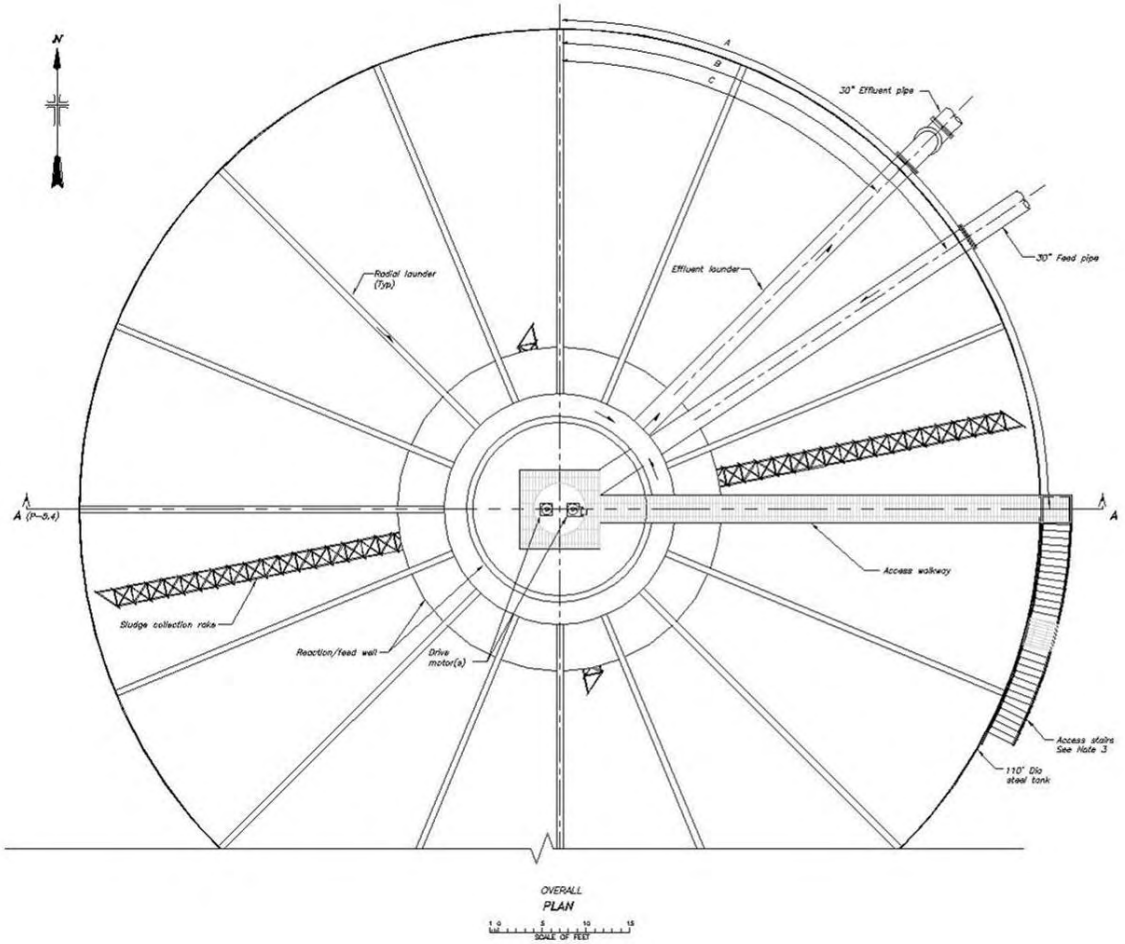
EWTP - Process Flow Diagram



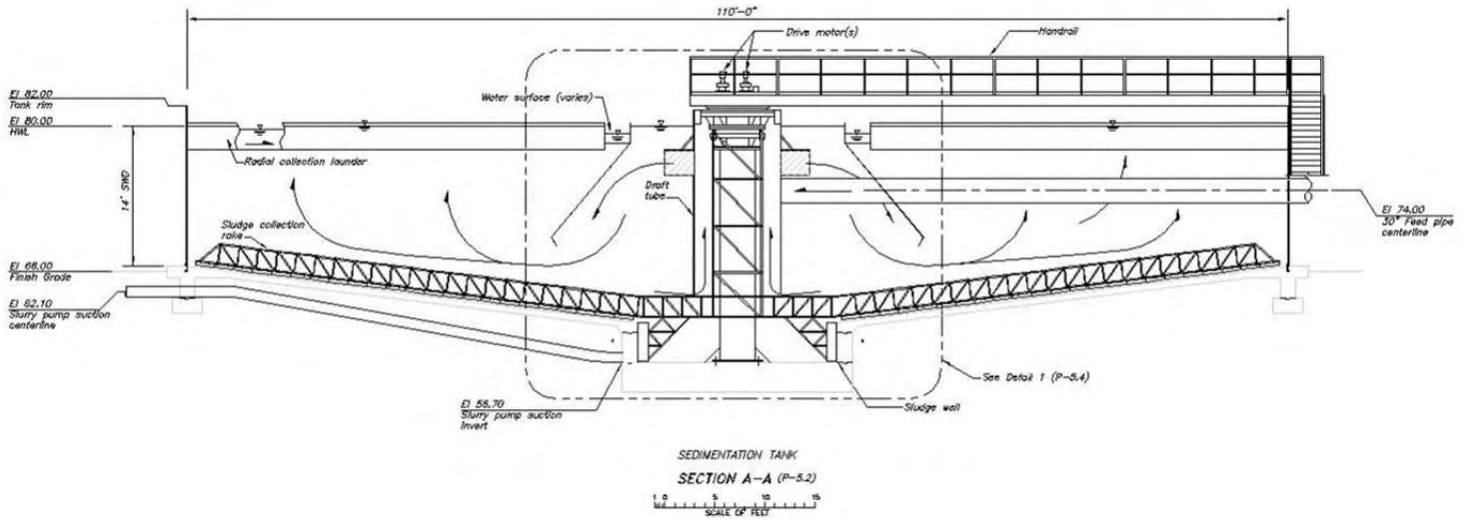
EWTP - Chemical Feed Building



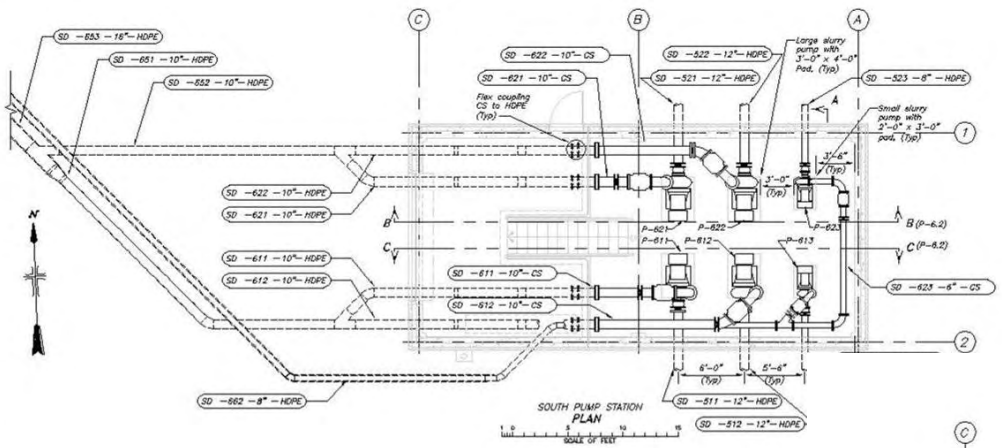
EWTP - Sedimentation Tanks

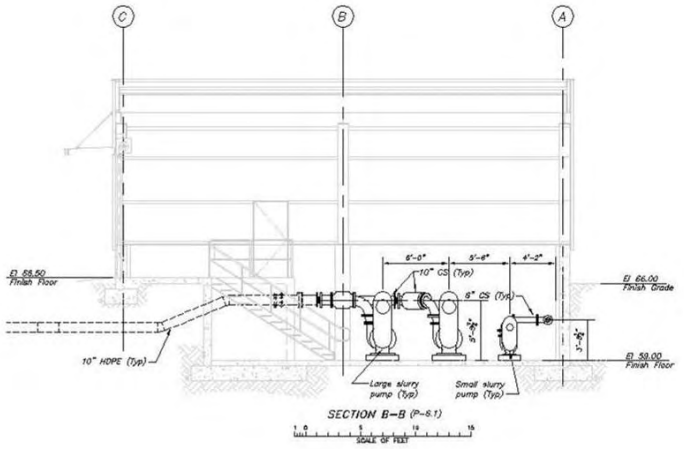


EWTP - Sedimentation Tanks



EWTP - Slurry Pump Station



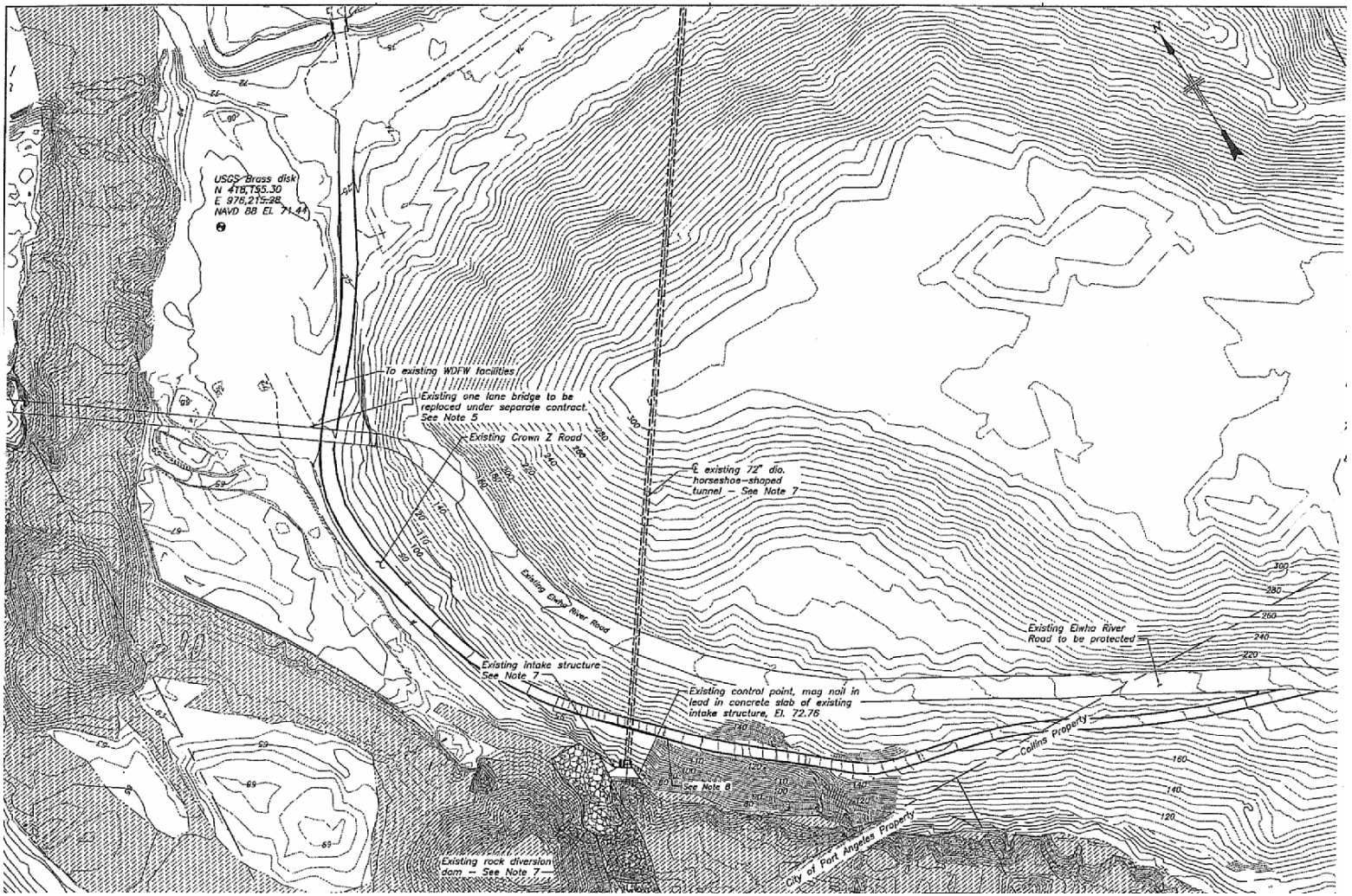


Upper Crown ‘Z’ Road

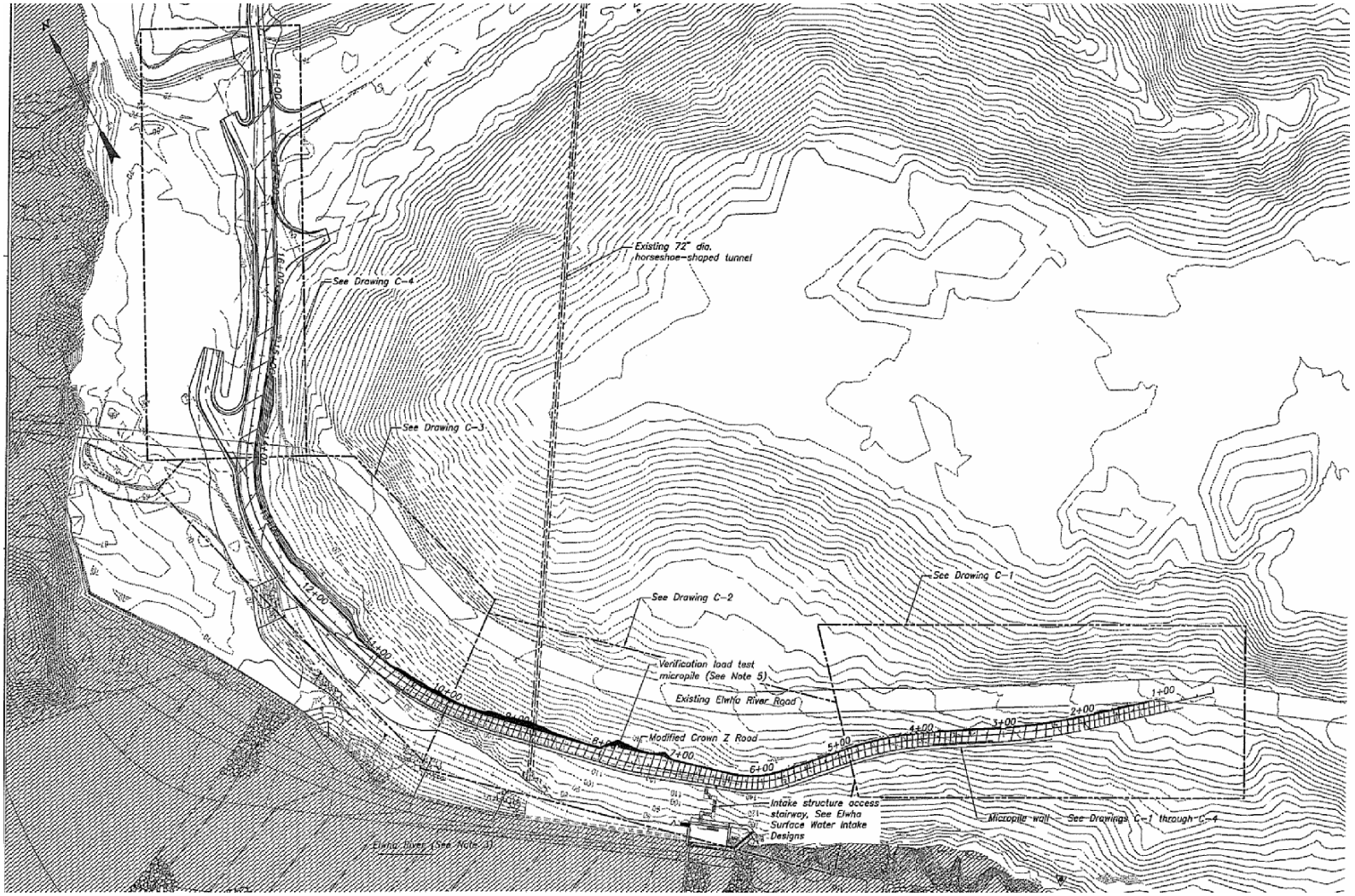
- Improvements to provide construction access
- Stabilization and replacement of 935 linear feet of road with an average grade of 13%

Upper Crown Z Road

Crown ‘Z’ Road – Existing Conditions

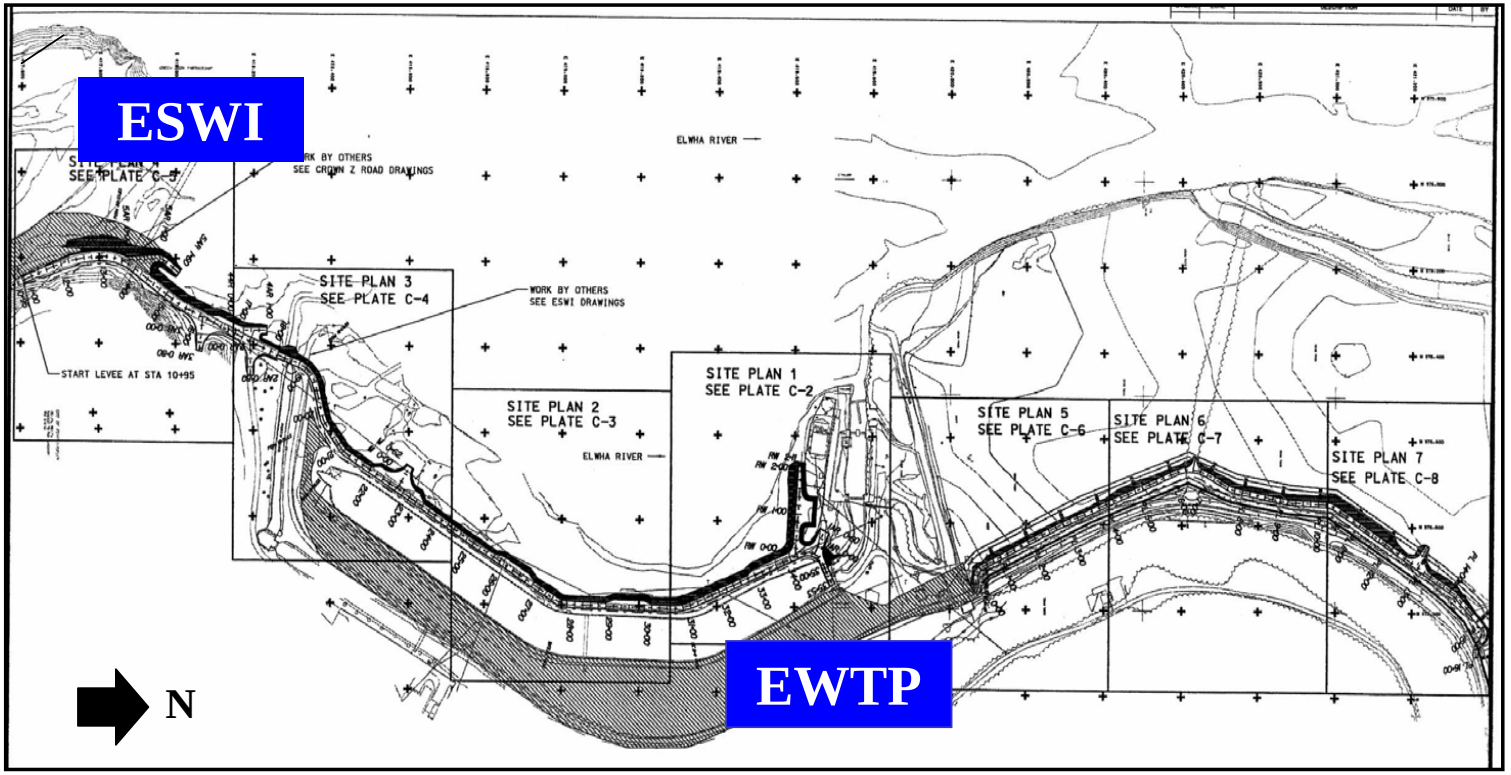


Crown 'Z' Road – Proposed



Area Flood Protection

- 100-year flood protection for new federal facilities
- Maintain existing level of flood protection for existing facilities



Contracting Information

Contracting Information

- Sources sought/market research and analysis
  - Socio-economic requirements
- Industry roundtable conference
- Separate pre-proposal conferences

Contracting Information

- Full and open competition--all sources

- Competitive best value source selection process

Contracting Information

- Advertised on **www.fedbizopps.gov**
  - Link to DOI National Business Center website: http://ideasec.nbc.gov, for copies of the plans and secs
  - Type in the solicitation number OR search by agency
  - Register for bidders' mailing list receive future amendments
  - Contact the DSC contract specialist if you have trouble with the website

Contracting Information

- Port Angeles Water Treatment Plant (PAWTP)
  - Pre-solicitation notice on or about May 23
  - Request for proposals o/a June 7
  - 45 day proposal/offer period
  - Estimated award date: September 2007
  - Estimated range of construction $15 to $25 million
  - Performance period 24 months from Notice to Proceed

Contracting Information

- Elwha Water Facilities (EWF)
  - Request for proposals: Fall 2007
  - Estimated range of construction $60 to $80 million
  - Performance period 36 months from Notice to Proceed

Contact Information

Websites:

Olympic National Park
http://www.nps.gov/olym

DOI National Business Center
http://ideasec.nbc.gov

Request For Proposals
http://www.fedbizopps.gov

Contact Information

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Denver, CO 80225-0287

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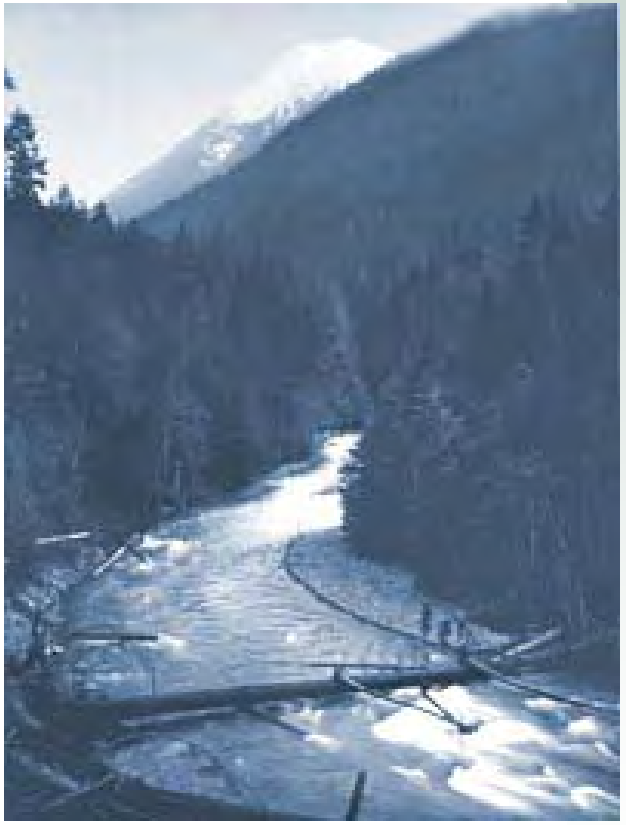


Questions?